

REMARKS

Claims 1 to 3 and 10 to 13 were pending in the present application. Applicant has amended claims 1 and 10 to 13, added claims 14 to 25, and canceled claims 2 and 3. Claims 1 and 10 to 25 are now pending.

§ 101 Rejections

The Examiner has rejected claims 1 to 3 and 10 to 13 under 35 U.S.C. § 101 because the claims are directed to a protocol, which is not a patent-eligible subject matter. Applicant has amended claims 1 and 10 to 13 to recite a method for a local node and a remote node of an interconnect system to communicate via communication links. Specifically, the local and the remote nodes communicate the various recited commands through command packets over the communication links between them. These amendments are supported by the Specification, p. 15, lines 9 to 24; p. 17, line 8 to p. 18, line 11; and Tables 4 to 7. Accordingly, claims 1 and 10 to 13 are now directed to a patentable subject matter.

Applicant has canceled claims 2 and 3, thereby rendering their rejections moot.

§ 103 Rejections

Claims 1 to 3, 10, 12, and 13

The Examiner rejected claims 1 to 3, 10, and 12 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,049,889 (“Steely, Jr. et al.”) in view of U.S. Patent No. 5,850,556 (“Grivna”), further in view of U.S. Patent No. 5,887,134 (“Ebrahim”), and further in view of U.S. Patent No. 4,991,079 (“Dann”). The Examiner rejected claim 13 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Steely, Jr. et al., Grivna, Ebrahim, Dann, as applied to claim 12, and further in view of U.S. Patent No. 6,038,677 (“Lawlor et al.”).

Claim 1

Applicant previously argued that Steely et al. does not disclose or suggest that an entire page at a node is mirrored to another node when less than the entire page is written. In one example only 32 byte of data is written at node 1 and only 32 byte of data, and not an entire 8k byte page, is mirrored to node 2. See Steely et al., Fig. 5 and col. 5, line 63 to col. 6, line 21. The Examiner countered that “col. 6, lines 14 to 15 shows that data smaller than a line of memory at the receiving

MC is written by padding the differences with zeros.” October 19, 2009 Office Action. Applicant respectfully traverses.

The line prior to the one cited by the Examiner states, “To convert a PCI address to an MC address, bits <31:27> of the original address are replaced with the contents of the MC base address register 53.” The line cited by the Examiner states, “The address is then extended to a full 40 bits by assigning zeros to bits <39:32>.” As the skilled person can understand, Steely et al. is referring to the conversion of the address of the reflected write between the PCI and the MC address space. It is not referring to padding any data with zeroes to write an entire line of data when less than the entire line is written. Furthermore, the recited memory copy write command does not pad any data with zeros when less than an entire line of memory is written. Instead, the entire line of memory is copied from the local node to the remote node. Padding zeroes to the data would otherwise corrupt the data with false information.

Applicant retracts the previous argument in the July 8, 2009 Amendment (p. 4, lines 16 to 20) that the reflective memory of Steely et al., where a write to certain memory address space at a local node is reflected to a remote node, is different from accepting a command to copy the data to another node.

Claims 2 to 3 and 10, 12, and 13

Claims 2, 3, 10, 12, and 13 depend from claim 1 and are patentable over the cited references for at least the same reasons as claim 1.

Furthermore, Applicant previously submitted additional arguments on claim 12 in the July 8, 2009 Amendment. Specifically, Applicant argued that even assuming an entire page is reflected to a remote node when less than the entire node is written, which the Applicant does not concede, the actions cited by claim 12 are not inherent in such a reflected memory write. For example, the new data may be written into the page, the entire page may be read, and the entire page may be transferred to the remote node. Thus, the recited actions of claim 12 are not inherently disclosed by Steely Jr. et al.

Addressing claim 12, the Examiner repeated his arguments from the prior office action without addressing Applicant’s arguments in the previous amendment. Specifically, the Examiner again cited Steely Jr. et al., col. 4, lines 54 to 57 and col. 7, lines 13 to 15, for teaching the details of

the memory copy write command as recited in claim 12. October 19, 2009 Office Action, p. 6. MPEP § 707.07(f) states “[w]here the applicant traverses any rejection, the examiner should, if he or she repeats the rejection, take note of the applicant's argument and answer the substance of it.” Applicant respectfully requests the Examiner to address the substance of Applicant’s argument regarding claim 12 or otherwise allow the claim.

Claim 11

The Examiner rejected claim 11 under 35 U.S.C. § 103(a) as being unpatentable over Steely et al., Grivna, and Ebrahim, and U.S. Patent No. 5,914,970 (“Gunsaulus et al.”). Claim 11 depends from claim 1 and is patentable over the cited references for at least the same reasons as claim 1.

Furthermore, Applicant previously argued in the July 8, 2009 Amendment that the cited references do not disclose a single DMA write command that causes both the computing of the parity and the writing of the parity.

Addressing claim 11, the Examiner repeated his arguments from the prior office action without addressing Applicant’s arguments in the prior amendment. Specifically, the Examiner again cited Steely et al., Grivna, and Ebrahim, and U.S. Patent No. 5,914,970 (“Gunsaulus et al.”) for disclosing a DMA write command that computes parity. October 19, 2009 Office Action, p. 7.

As discussed above, MPEP § 707.07(f) states “[w]here the applicant traverses any rejection, the examiner should, if he or she repeats the rejection, take note of the applicant's argument and answer the substance of it.” Applicant respectfully requests the Examiner to address the substance of Applicant’s argument regarding claim 11 or otherwise allow the claim.

New Claims

New claims 14 to 25 depend from claim 1 and they are patentable for at least the same reasons as claim 1.

Summary

In summary, claims 1 to 3 and 10 to 13 were pending in the present application. Applicant has amended claims 1 and 10 to 13, canceled claims 2 and 3, and added claims 14 to 25. Applicant requests the Examiner to withdraw his claim objection/rejections and allow claims 1 and 10 to 25. Should the Examiner have any questions, please call the undersigned at (408) 382-0480x206.

I hereby certify that this correspondence is being mailed transmitted prior to expiration of the set period of time by being transmitted via the Office electronic filing system in accordance with § 1.6(a) (4).

/David C Hsia/
Signature

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Date

Respectfully submitted,

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